Land Cover/Biology Investigation at a Glance

Protocols

Identify the general land cover type to MUC level 1
Qualitative Land Cover Sample Site Protocol
Data collected once for each land cover sample:
GPS location, photos of sample, determine MUC class
Quantitative Land Cover Sample Site Protocol
Data collected once for each land cover sample:
GPS location, photos of sample, biometry measurements, determine MUC class
Biometry Protocol
Data collected once or twice per year for Biology Study Site, once for the Quantitative Land Cover Sample Sites
Determine dominant and co-dominant vegetation types
Biometry measurements: tree height and circumference, grass biomass, canopy cover, and ground cover
MUC System Protocol
Manual Interpretation Land Cover Mapping Protocol
Unsupervised Clustering Land Cover Mapping Protocol
Accuracy Assessment Protocol
Create a difference/error matrix, calculate overall accuracy and interpret results.

Suggested Sequence of Activities

[Certain Learning Activities are desirable prior to implementing Protocols]
Read *Remote Sensing* found in the *Implementation Guide*
Read the *Scientists' Letter* and *Interview* with your students
Select a site and identify the general land cover type to MUC level 1
Perform *Qualitative* or *Quantitative Land Cover Sample Site Protocols*
Pre-Protocol Learning Activity: *Site Seeing*–introduces systems concepts
Perform *Biometry Protocol*, set up Biology Study Site
Pre-Protocol Learning Activity: *Leaf Classification* introduces the concepts of classification
Perform *MUC System Protocol*
Pre-Protocol Learning Activities: *Odyssey of the Eyes*; introduces remote sensing and *Some Like It Hot* introduces false-color images
Tutorial: *Manual Interpretation* from *Toolkit*
Tutorials: *Introduction to MultiSpec* and *Unsupervised Clustering Tutorial* if you will be doing computer image processing
Perform either *Manual Interpretation Land Cover Mapping Protoco*l or *Unsupervised Clustering Land Cover Mapping Protocol*
Post-Protocol Learning Activity: *Discovery Area*–using images students create
Pre-Protocol Learning Activity: *Introducing the Difference/Error Matrix or What's the Difference?*
Perform *Accuracy Assessment Protocol*